

WHAT IS CLAIMED IS

1. An information processing for performing processing of supplying management information to a data storage device including: data storage means for storing data to supply predetermined services; management information storage means for storing management information containing a key necessary to access a storage area of said data storage means; and management means for managing the storage area of said data storage means on the basis of the management information, characterized by comprising forming means for forming the management information and encrypting means for encrypting the management information.

2. The information processing device as claimed in claim 1, further including transmission means for transmitting the encrypted management information through a predetermined transmission medium to said data storage device.

3. The information processing device as claimed in claim 1, wherein the management information further contains a storage area identifying code which can be allocated to said storage area to be managed and is used to identify said storage area.

4. The information processing device as claimed in claim 1, wherein the management information further contains an empty capacity of said storage area to be managed.

5. The information processing device as claimed in claim 1, further including operation means for operating a check code

to check whether the management information has been tampered or not, wherein said encrypting means encrypts the check code together with the management information.

6. The information processing device as claimed in claim 1, wherein the management information further contains information to manage said storage area to be managed while said storage area is designed in a layer structure.

7. The information processing device as claimed in claim 1, wherein when said storage area to be managed is managed on the basis of the management information while being designed in a layer structure, said encrypting means encrypts the management information of a lower layer by using the key contained in the management information of an upper layer.

8. A data storage device including: data storage means for storing data to supply predetermined services; management information storage means for storing management information containing a key necessary to access a storage area of said data storage means; and management means for managing the storage area of said data storage means on the basis of the management information, wherein the management information is renewed by an access from the external.

9. The data storage device as claimed in claim 8, wherein the access from the external is carried out through a predetermined transmission medium.

10. The data storage device as claimed in claim 8, further

including communication means for performing communications with external equipment, wherein said management means manages said storage means in response to an instruction from said external equipment.

11.The data storage device as claimed in claim 10, wherein said communication means performs the communications with said external equipment in a contact or non-contact state.

12.The data storage device as claimed in claim 8, wherein the management information is supplied from an external information processing device.

13.The data storage device as claimed in claim 8, wherein the management information further contains a storage area identifying code which can be allocated to said storage area to be managed and is used to identify said storage area.

14.The data storage device as claimed in claim 8, wherein the management information further contains an empty capacity of said storage area to be managed.

15.The data storage device as claimed in claim 8, wherein the management information further contains information to manage said storage area to be managed while making said storage area in a layer structure.

16.An information processing card including data storage means for storing data, management information storage means which serves to manage a storage area of said data storage means and contains a key necessary to access said storage area, and

management means for managing said data storage means on the basis of the management information, characterized by further comprising reception means for receiving the encrypted management information from external data storage device, decoding means for decoding the encrypted management information and storage control means for controlling said management information storage means so that the management information is stored in said management information storage means.

17. The information processing card as claimed in claim 16, wherein the management information further contains a storage area identifying code which can be allocated to said storage area to be managed and is used to identify said storage area.

18. The information processing card as claimed in claim 16, wherein the management information further contains an empty capacity of said storage area to be managed.

19. The information processing card as claimed in claim 16, further including operation means for operating a check code to check whether the management information has been tampered or not, wherein said decoding means decodes the check code together with the management information.

20. The information processing card as claimed in claim 16, wherein the management information further contains information to manage said storage area to be managed while designing said storage area in a layer structure.

21. The information processing card as claimed in claim 16, further including communication means for performing communications with external equipment, wherein said management means manages said storage means in response to an instruction from said external equipment.

22. The information processing card as claimed in claim 21, wherein said communication means performs the communications with said external equipment in a contact or non-contact state.

23. The information processing card as claimed in claim 16, wherein said management means manages a storage area of said data storage while designing said storage area in a layer structure, and when the management information is encrypted by using the key contained in the management information of an upper layer thereof, said decoding means decodes the encrypted management information by using the key contained in the management information of an upper layer thereof which is stored in said management information storage means.

24. An information processing method for performing processing of supplying management information to a data storage device having data storage means for storing data to supply predetermined services; management information storage means for storing management information containing a key necessary to access a storage area of said data storage means; and management means for managing the storage area of said data storage means on the basis of the management information,

characterized by comprising:

a forming step of forming the management information; and  
an encrypting step of encrypting the management information.

25. The information processing method as claimed in claim 24, further including a transmission step of transmitting the encrypted management information through a predetermined medium to said data storage device.

26. The information processing method as claimed in claim 24, wherein the management information further contains a storage area identifying code which can be allocated to said storage area to be managed and is used to identify said storage area.

27. The information processing method as claimed in claim 24, wherein the management information further contains an empty capacity of said storage area to be managed.

28. The information processing method as claimed in claim 24, further including operation means of operating a check code to check whether the management information has been tampered or not, wherein said encrypting means encrypts the check code as well as the management information.

29. The information processing method as claimed in claim 24, wherein the management information further contains information to manage said storage area to be managed while designing said storage area in a layer structure.

30. The information processing method as claimed in claim 24,

wherein when said storage area to be managed is managed on the basis of the management information while designed in a layer structure, said encrypting step encrypts the management information of a lower layer by using the key contained in the management information of an upper layer thereof.

31. A data storage method having data storage means for storing data to supply a predetermined service, management information storage means for storing management information containing a key necessary to access a storage area of said data storage means and management means for managing the storage area of said data storage means on the basis of the management information, wherein the management information is renewed by an access from the external.

32. The data storage method as claimed in claim 31, wherein the access from the external is carried out through a predetermined transmission medium.

33. The data storage method as claimed in claim 31, further including communication means for performing communications with external equipment, wherein said management means manages said storage means in response to an instruction from said external equipment.

34. The data storage method as claimed in claim 33, wherein said communication means performs the communications with said external equipment in a contact or non-contact state.

35. The data storage method as claimed in claim 31, wherein

the management information is supplied from an external information processing device.

36. The data storage method as claimed in claim 31, wherein the management information further contains a storage area identifying code which can be allocated to said storage area to be managed and is used to identify said storage area.

37. The data storage method as claimed in claim 31, wherein the management information further contains an empty capacity of said storage area to be managed

38. The data storage method as claimed in claim 31, wherein the management information further contains information to manage said storage area to be managed while designing said storage area in a layer structure.

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